

Notice of Allowability

Application No.

10/715,840

Examiner

SALMAN AHMED

Applicant(s)

OOGUSHI, MINORU

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed on 8/22/2008.
2. ☒ The allowed claim(s) is/are 8-18 and 20-27 (Currently renumbered to 1-19 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 9/2/2008, 9/3/2008
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date ____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Chih-Hsin Teng (Registration number 63168) on Nov 18, 2008.

The application has been amended as follows:

Claim 8 line 2 "communication I/Fs" has been changed to –communication interfaces (I/Fs)--.

Claim 8 line 24 "routing information" has been changed to –memory further stores routing information--.

Claim 18 line 1 "A business method" has been changed to –A method for--.

Claim 18 line 25 "routing information" has been changed to –memory further stores routing information--.

Allowable Subject Matter

2. Claims 8-18 and 20-27 are allowed.

Reason for Allowance

3. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach the following:

In regards to claim 8 the prior art does not teach a memory stores a corresponding relationships each defining among a physical interface identifier for identifying a physical interface, a logical interface identifier for identifying a logical interface, a kind of protocol of a received packet, a first virtual router identifier for identifying a first virtual router, a first packet processing action to be executed on the received packet by the first virtual router, a second virtual router identifier for identifying the second virtual router designated to exclusively execute a second packet processing action which is different from first packet processing action; wherein each of the plurality of virtual routers functions as the first virtual router to distribute a received packet to the second virtual router which exclusively executes the second packet processing action on the received packet, and the second virtual router exclusively executes the second packet processing action on the received packet based on one of the corresponding relationships including one physical interface identifier for identifying the physical interface having received the packet, one logical interface identifier for identifying the logical interface having received the packet, one kind of protocol category of the received packet, and then performs a routing processing with reference to the routing information and outputs the packet.

In regards to claim 18 the prior art does not teach a memory which stores a corresponding relationships each defining among a physical interface identifier for identifying a physical interface, a logical interface identifier for identifying a logical interface, a kind of protocol of a received packet, a first virtual router identifier for identifying a first virtual router, a first packet processing action to be executed on the

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received packet by the first virtual router, a second virtual router identifier for identifying the second virtual router designated to exclusively execute a second packet processing action which is different from first packet processing action, distributing by each of the plurality of Virtual routers functioning as the first virtual router a received packet to the second virtual router which exclusively executes the second packet processing action on the received packet; and exclusively executing by the second virtual router the second packet processing action on the received packet based on one of the corresponding relationships including one physical interface identifier for identifying the physical interface having received the packet, one logical interface identifier for identifying the logical interface having received the packet, one kind of protocol category of the received packet, and then performing a routing processing with reference to the routing information and outputs the packet.

In regards to claim 21 the prior art does not teach a memory which stores corresponding relationships each defining among a physical interface identifier for identifying a physical interface, a logical interface identifier for identifying a logical interface, a kind of protocol of a received packet, a first virtual router identifier for identifying a first virtual router, a first packet processing action to be executed on the received packet by the first virtual router, a second virtual router identifier for identifying the second virtual router designated to exclusively execute a second packet processing action which is different from first packet processing action, and also stores routing information for routing a packet, wherein each of the plurality of virtual routers functions

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as the first virtual router to distribute a received packet to the second virtual router which exclusively executes the second packet processing action on the received packet, and the second virtual router exclusively executes the second packet processing action on the received packet based on one of the corresponding relationships including one physical interface identifier for identifying the physical interface having received the packet, one logical interface identifier for identifying the logical interface having received the packet, one kind of protocol category of the received packet, and then performs a routing processing with reference to the routing information and outputs the packet.

The prior art alone or in combination fails to jointly suggest or teach the claimed combination of features as taught by the instant application. Therefore claims 8-18 and 20-27 are to be deemed allowable over prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A./

Examiner, Art Unit 2419

/Edan Orgad/

Supervisory Patent Examiner, Art Unit 2419